

Cardiology Elective

I. Purpose/Rationale/Value

It is expected that each resident on the Cardiology Consult rotation will acquire:

1. The knowledge of cardiology diseases, as related to a systematic approach to the patient who may have a cardiac problem by taking a thorough problem directed history, performing a careful physical examination and generating a differential diagnosis related to cardiology problems.
2. Clinical, management and interpersonal skills related to recognizing broad clinical syndromes and initiating proper therapy based upon a working knowledge of cardiology.
3. The professional attitudes and behavior necessary to treat patients with cardiovascular diseases.
4. The experience required to become a proficient general internist, as pertains to the Cardiology rotation.

II. Objectives

General

1. The faculty and housestaff must participate in patient care so as to define the etiology, pathogenesis, clinical presentation and natural history of diseases seen during this rotation.
2. It is generally expected that each housestaff develop an advanced level of skill and diagnosis, as well as mature judgment and resourcefulness in therapy as it pertains to the Cardiology rotation.
3. To develop an appreciation for an approach to the ethical, cultural and socioeconomic dimensions of illness.
4. To develop attitudes and skills needed for continued self-education throughout a professional career and the ability to critically assess the medical literature.

Specific

1. To become proficient in the interpretation of electrocardiograms.
2. To become proficient in the physical exam as related to cardiovascular diseases.
3. Define cardiac risk of patients with cardiac disease undergoing non-cardiac surgery.
4. To learn the indications for various specialized cardiac tests.

III. Principal Teaching Methods

Progressive levels of responsibility for patient care will occur for medical students, junior and senior residents under the supervision of attendings.

Attending rounds, bedside teaching, didactic lectures, cardiology syllabus, case presentations, assigned readings and clinical conferences are all teaching methods to be utilized during this rotation.

Teaching methods include, but are not limited to, the performance and mastery of the following:

1. Medical history.
2. Physical examination.
3. Diagnostic testing
4. Formulation of problem lists/differential diagnosis.
5. Development of cost effective management plans.
6. Performance of discharge planning.
7. Development of appropriate interpersonal relationships with patients, families, other residents, health care workers, and attending physicians.
8. Development of behaviors to include integrity, respect and compassion.
9. Development and implementation of ethical standards and appropriate behavior to this rotation.

Mix of Diseases/Patient Characteristics/Types of Clinical Encounters

Mix of Diseases

A wide range of patients with cardiac diseases described in the knowledge objectives of this curriculum including coronary artery disease, valvular heart disease, congenital heart disease and cardiomyopathy.

Patient Characteristics

Patients of both sexes with a wide range of ages from TRICARE Region V including patients referred for admission or consultation.

Types of Clinical Encounters

Primary and consultative evaluation of patients admitted and referred for cardiovascular disease in the inpatient and outpatient setting.

IV. Educational Content

A. Skills Objectives

Residents are expected to learn the indications, contraindications, complications and limitations of cardiologic procedures; develop technical proficiency in performing these procedures; and learn to interpret the results of the following specific procedures:

Diagnostic Skills:

Electrocardiogram interpretation - required
Holter monitor interpretation - elective
Coronary angiography interpretation - elective
Echocardiogram interpretation - elective
Electrophysiology testing interpretation - elective

Procedures:

Electrocardiogram performance - required
Exercise treadmill testing - required

B. Patient Characteristics:

Patients a Month Per Resident	
Number of Patients	
Inpatient	15-25
Outpatient	10-15

C. Knowledge Objectives

Diseases of the Heart and Blood Vessels

Clinical Syndromes

Chest Pain

Noncardiac
Angina
Myocardial Infarction
Pericarditis

Palpitations and Cardiac Arrhythmias

Palpitations
Cardiac Arrhythmias
Sudden Cardiac Death

Congestive Heart Failure

Systolic and diastolic dysfunction

Hypotension and Cardiogenic Shock

Hypotension and Cardiogenic Shock

Specific Diseases

- Atherosclerosis and the Dyslipoproteinemias
 - Disorders of Lipids and Lipoproteins

- Arterial Hypertension
 - Essential Arterial Hypertension
 - Secondary causes of Arterial Hypertension

- Coronary Heart Disease
 - Ischemic Heart Disease
 - Acute Myocardial Infarction

- Diseases of the Aorta and Peripheral Vessels
 - Diseases of the Peripheral Arteries and Veins
 - Diseases of the Aorta

- Valvular Heart Disease
 - Valvular Heart Disease
 - Rheumatic Fever
 - Congenital Heart Disease

- Infective Endocarditis
 - Infective Endocarditis
 - S. aureus
 - S. epidermidis
 - Enterococcus
 - HACEK
 - Fungi

- Myocardial and Pericardial Disease
 - Cardiomyopathies
 - Pericardial Disease and

Pericardial Heart Disease

V. Principal Ancillary Educational Materials

- Internal Medicine Clinic Resident Library
- 74th Medical Group Medical Library
- Med-Line Capability
- Review of Autopsies
- Individual divisional/departmental syllabus/bibliography for this rotation
- DGMC Cardiology Syllabus
- American College Cardiology Clinical Guidelines

VI. Methods to be Used for Evaluation

Standard house officer evaluation forms to be completed by attending physician.

Review patients encounters - diagnosis and quantity.

Review required and elective procedures performed - certification by faculty.

Review medical record standing.

VII. Faculty

Major Kenneth M. Lighthouse (Chief)

Major Jeffrey R. Breneisen

Major Michael K. Cao

Major XiaoLi Ren

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